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| <p>Substitute for form 1449A/PTO (Modified)</p> <p>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</p> <p>(use as many sheets as necessary)</p> | | | Complete If Known | | |
| | | | Application Number | 10/588,689 | |
| | | | Filing Date | August 4, 2006 | |
| | | | First Named Inventor | WESTBERRY et al. | |
| | | | Art Unit | To be assigned | |
| | | | Examiner Name | To be assigned | |
| Sheet | 1 | of | 2 | Attorney Docket Number | 186257/US/ (469981-00115) |

| U.S. PATENT DOCUMENTS | | | | | |
|-----------------------|-----------------------|---|--------------------------------|---|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number-Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | A1 | US-4,458,008 | 7/3/1984 | DONGES, et al. | |
| | A2 | US-4,683,195 | 7/28/1995 | MULLIS, et al | |
| | A3 | US-4,683,202 | 7/28/1995 | MULLIS, et al | |
| | A4 | †US-5,536,649 | 7/16/1998 | FRASIER, et al. | |
| | A5 | US-5,409,818 | 4/25/1995 | DAVEY et al. | |
| | A6 | US-5,418,149 | 5/23/1995 | GELFUND, et al. | |
| | A7 | †US-5,455,166 | 10/3/1995 | WALKER | |
| | A8 | †US-5,830,655 | 11/3/1998 | MONFORTE et al. | |
| | A9 | US-6,248,833 | 6/19/2001 | HABERHAUSEN et al. | 1248500 |
| | A10 | US-6,413,718 | 7/2/2002 | LEUSHNER et al. | |
| | A11 | US-6,783,940 | 8/31/2004 | McLAUGHLIN et al. | |

| FOREIGN PATENT DOCUMENTS | | | | | |
|--------------------------|-----------------------|---|--------------------------------|---|---|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document Country Code ² Number ³ Kind Code ⁵ (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | B1 | | | | |

| NON PATENT LITERATURE DOCUMENTS | | | | |
|---------------------------------|-----------------------|---|--|--|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | |
| | C1 | BEAUCAGE et al., "Deoxynucleoside Phosphoramidites - A New Class of Key Intermediates for Deoxyolynucleotide Synthesis"; <i>Tetrahedron Letters</i> , 22:1859-1862 (1981) | | |
| | C2 | BRAASCH and COREY, "Locked nucleic acid (LNA): fine tuning the recognition of DNA and RNA"; <i>Chem Biol</i> 2001, 8(1):1-7 | | |
| | C3 | MANIATIS et al., <i>Molecular Cloning: A Laboratory Manual</i> (New York: Cold Spring Harbor Laboratory) pp280-281 (1982) | | |
| | C4 | MOK et al., The Escherichia coli Primosome and DnaB Helicase Can Form Replication Forks that Move at the Same Rate; <i>J. Biol. Chem.</i> 262:16558-16565 (1987) | | |
| | C5 | NIELSEN et al., "Peptide Nucleic Acid (PNA): A DNA Mimic with a Peptide Backbone", <i>Biconjug Chem.</i> 1994(1):9-7 (1994) 5:3-7 | | |
| | C6 | RADDING, C., "Homologous Pairing and Strand Exchange in Genetic Recombination"; <i>Ann. Review of Genetics</i> , 16:405-37 (1982) | | |
| | C7 | UPRETTI, et al., "Enzyme leakage during cryopreservation of ram spermatozoa"; <i>Animal Reproduction Science</i> 1996, Vol. 41, pages 27-36 | | |

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| Examiner Signature | /Young J. Kim/ | Date Considered | 09/27/2010 |
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*EXAMINER: † These references were previously cited in a related application relied upon for an earlier filing date under 35 USC 120 and no copies are submitted in accordance with 37 CFR 1.98(d). Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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